An innovative approach to managing space, time and budget.

Situated on the banks of the River Irwell, Trinity Island is the latest in a series of residential skyscrapers that are transforming the Manchester skyline. Designed by architectural firm SimpsonHaugh, developer Renaker is building two towers of 55 and 60 storeys, containing 483 and 532 high-end apartments respectively, which will use a bespoke water supply infrastructure provided by Polypipe Building Services.

Two towers. 1,015 apartments. Comprehensive water supply system with customised components delivered to meet tough build targets.

CASE STUDY

Project
Water supply system installation within Towers D1 and D2 of Trinity Island Development.

Client
MWA Ecosystems on behalf of Renaker.

Application
Water supply system.

Products
MecFlow Fusion water supply system including custom-designed manifolds.

Early adoption of innovative systems pays dividends.

Mechanical & electrical Plumbing contractor MWA Ecosystems was looking for a water supply system that could handle the scale, complexity and ambitious build programme of this residential skyscraper development – from a supplier that could provide a dependable partnership over the course of the project.

Having previously worked with Polypipe on many drainage systems, MWA became an early adopter of the MecFlow Fusion Supply System and knew it's benefits. Nevertheless, the Trinity Island project needed a highly bespoke supply system, and a holistic solution was needed that delivered several specific advantages.

Gavin Robinson, National Business Development Manager at Polypipe Building Services, said: "There were three major challenges overcome at Trinity Island. Firstly, we had to deliver highly bespoke systems that could feed entire towers without taking up valuable space. Secondly, it was an ambitious schedule. Thirdly we needed to control costs.

"Maintaining consistent water supply pressure in a 600-foot building with 500 apartments, is in itself a challenge - conventionally solved by multiple plant rooms and massive risers."Fusion however uses a fibre reinforced multi-layer PP-RCT pipe specifically designed for plantrooms, risers, headers and runouts. It's also got a fire rating of B-s1, d0.

"The MecFlow system was therefore robust enough to handle the high pressures required to get boosted cold water to the top of the towers - without the need for secondary pumps. Fusion is robust, lightweight and adaptable. Which when, used with our custom-designed manifolds, meant our solution needed minimal space.

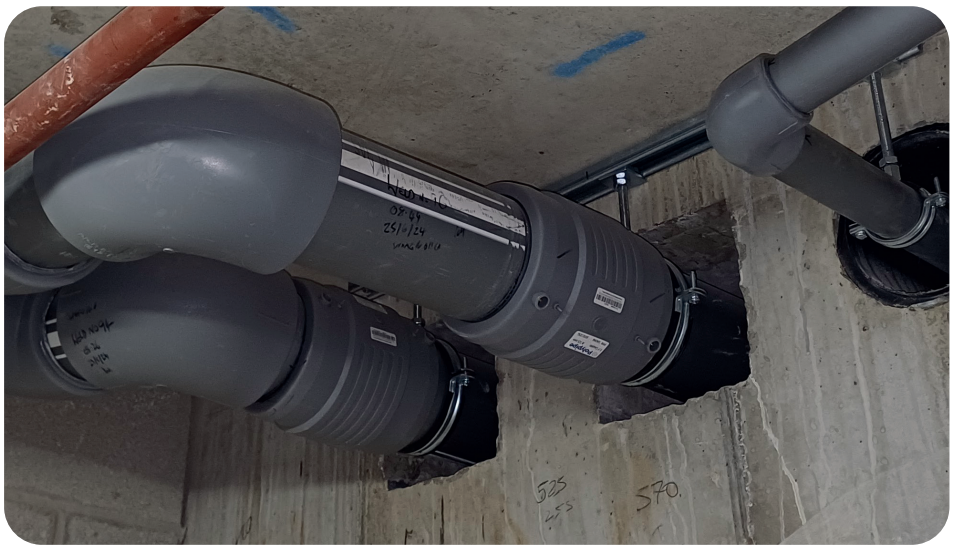
"Two key factors contributed to a rapid install. Polypipe's use of innovative but super-reliable jointing methods, and pre-fabrication.

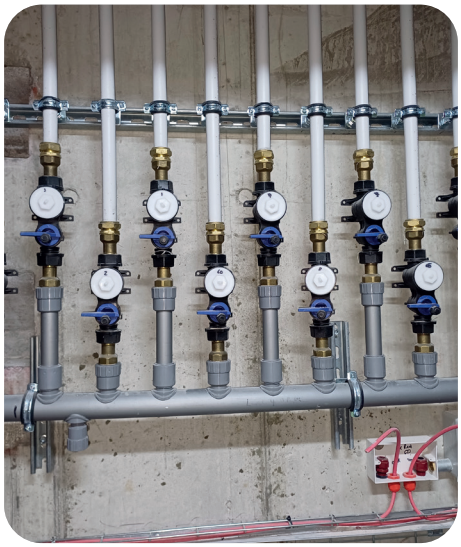
Gavin Robinson explained further:
"Electrofusion couplings were used in the risers which were then connected by socket welding to the tank rooms. Over the lifecycle of a project like Trinity Island,MecFlow Fusion delivers very significant time savings.

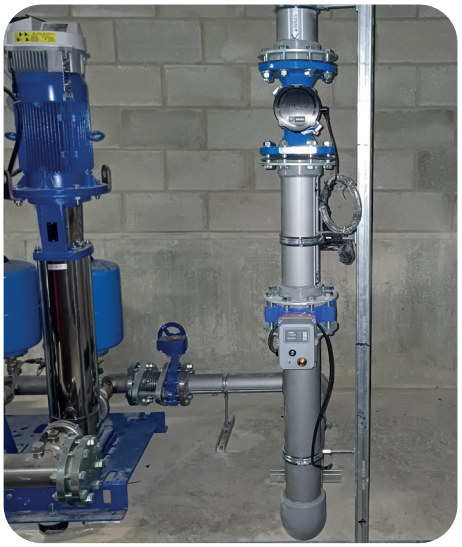
Also, the jointing methods can be perfected in a few hours. Workers with little or no previous training can quickly produce reliable joints. As there's currently a shortage of skilled plumbers, MecFlow Fusion can be a great asset to staying on schedule.

"Much of the Boosted Cold-Water Riser was pre-fabricated, which also saved time on site. MWA could fit and test quickly, and re-allocate labour to other areas of the MEP install.

"For our approach to work, it was important we worked closely with MWA at the start of the project – particularly with the project manager. Our technical team was able to produe detailed drawing of the prefabricated pipe so when it got to site it fitted perfectly.And the stable pricing of MecFlow's materials helped control costs over the course of such a long-term project."







Andrew Moss, Company Director at MWA Ecosystems, comments:

"Being able to deliver according to tight installation windows helps our work fit in with the overall schedule, and maintain our close working relationship with Renaker, who are a very important customer to us. The MecFlow system undoubtedly helps us do this. Polypipe have been extremely helpful. Their site visits, installer training, and essential technical support mean we can iron out issues as projects progress."